

App. No. 10/604,514
Response dated April 2, 2006
Preliminary Amendment accompanying Request for Continued Examination

REMARKS

Summary of Amendments

1. Claims 1 through 10 were originally presented in this application. No claims have been added or cancelled in this or any previous paper. Claim 1 has been amended, as described in more detail below, to more particularly point out and distinctly claim the inventive material of the instant invention. Claims 1 through 10 remaining pending.

Claim Rejections - 35 U.S.C. § 103

Claims 1-10; Shamouilian et al. '958 in view of Heimann et al. '707 or Munshi et al. '030

Claims 1-10; Niori et al. '246 in view of Heimann et al. '707 or Munshi et al. '030

2. In the first Office action, mailed June 29, 2005, on the merits, claims 1-10 were rejected under 35 USC 103(a) as being unpatentable over *Shamouilian et al.* (U.S. Pat. No. 6,494,958) in view of either *Heimann et al.* (U.S. Pat. No. 6,620,707) or *Munshi et al.* (U.S. Pat. No. 5,654,030). Claims 1-10 were also rejected under 35 USC 103(a) as being unpatentable over *Niori et al.* (U.S. Pat. No. 6,197,246) in view of either the *Heimann et al.* or *Munshi et al.* patents. In a response dated September 29, 2005, Applicants argued that the Examiner failed to make a *prima facie* case of obviousness according to MPEP 2143.
3. In the present, final Office action, the Examiner again rejected claims 1-10 as being unpatentable over the above cited combinations of references. Applicants' amendments and arguments filed on September 29, 2005 were not considered persuasive by the Examiner.
4. In his Response to Arguments, the Examiner states: "[T]wo-dimensional structures are only theoretical concepts not seen in reality". Applicants respectfully disagree. As argued in the response dated September 29, 2005, *Shamouilian et al.* teaches a two-dimensional electrode comprising a mesh of electrically conductive wires (column 9, line 50). Applicants submit that the *Shamouilian* electrode is two-dimensional in that the "pores" are merely the open spaces between the conductive wires in the plane of the electrode. In other words, each "pore" extends through the entire thickness of the electrode. Stated another way, the pore size is greater than the thickness of the electrode. The Examiner further states that "*Shamouilian et al.* disclose[s] a length and circular elliptical or rectangular cross section of mesh." The Examiner's statement serves to illustrate the Applicants' point that *Shamouilian* discloses a two-dimensional electrode, since circles, ellipses, and rectangles are two-dimensional shapes.

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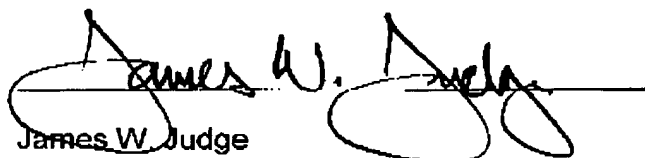
5. *Shamoullian's* two-dimensional mesh electrode is in clear contrast to the sinter laminae recited in claim 1, which by its very nature has a three-dimensional distribution of pores. In other words, the structure recited in claim 1 describes a pore size that is less than the thickness of the electrode, with the pores being distributed in three dimensions throughout the electrode.
6. Notwithstanding the above, Applicants have elected to amended claim 1 to further differentiate it from the prior art of record. Applicants therefore respectfully traverse the above-cited rejections to the extent that they are pertinent to amended claim 1. Claim 1 has been amended to recite that the porosity is "in the range from 0.1% to 40%." Amended claim 1 is supported by the original application for example, in paragraph [0021] which states that the porosity should be less than 40% to prevent the electrical resistance of the circuitry from becoming too high. No new matter is entered.
7. Applicants respectfully submit that claim 1, as amended, is now patentable over the above cited combinations of prior art references. In particular, neither of the primary references, *Shamoullian et al.* and *Niori et al.*, teaches or even suggests a porous electrode having a porosity in the recited range from 0.1% to 40%. Moreover, it can be fairly said that both *Shamoullian et al.* and *Niori et al.* teach away from the instant invention as recited in amended claim 1. In particular, as discussed above, both *Shamoullian et al.* and *Niori et al.* teach mesh electrodes. It is well known to those of ordinary skill in the art that such mesh electrodes typically have a porosity—as defined by the open spaces between the conductive wires in the plane of the electrode—that is significantly greater than 40%. Furthermore, meshes are commonly used for screening operations, in which it is desirable to have as high a porosity as possible (much greater than 40%) in order to prevent plugging of the mesh.
8. For the reasons set forth above, Applicants respectfully submit that independent claim 1, as amended, is patentable over the prior art of record. Independent claim 1 being allowable, it follows *a fortiori* that pending dependent claims 2-10 must also be allowable, since these dependent claims carry with them all the elements of independent claim 1. Accordingly, Applicants request that the Examiner withdraw his rejections of claims 1-10.

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Applicants believe that this application is now in full condition for allowance, which action Applicants earnestly solicit.

Respectfully submitted,

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